

**WHAT IS CLAIMED IS:**

- 1 1. A microphone including an arrangement facilitating the reception and  
2 identification of at least one speaker utilizing the microphone, said arrangement  
3 comprising:  
4 a device for producing an audio signal from said microphone;  
5 at least one sensor for determining the speaker using said microphone;  
6 an encoder for encoding the audio signal with a speaker with a speaker indicator  
7 number as determined by said at least one sensor;  
8 and a decoder for extracting the audio signal and decoding the speaker indicator  
9 number so as to enable the deriving of a speaker recognition model  
10 determination of the speaker.
- 1 2. A microphone as claimed in Claim 1, wherein said at least one sensor, said  
2 encoder and audio signal producing device are installed in said microphone.
- 1 3. A microphone as claimed in Claim 1, wherein said at least one sensor  
2 determines which of at least two speakers is using the microphone.
- 1 4. A microphone as claimed in Claim 1, wherein said audio signal device produces  
2 one or more output audio streams in dependence upon the identity of the speaker using  
3 the microphone.
- 1 5. A microphone as claimed in Claim 4, wherein said microphone comprises at  
2 least one switch actuatable by a speaker for producing said one or more output audio  
3 streams.
- 1 6. A microphone as claimed in Claim 5, wherein said switch comprises a  
2 manually-operated button on said microphone.

1 7. A microphone as claimed in Claim 5, wherein said switch comprises a position  
2 switch for detecting an angular orientation of said microphone.

1 8. A microphone as claimed in Claim 7, wherein said position switch comprises a  
2 mercury balance switch.

1 9. A microphone as claimed in Claim 4, wherein a plurality of microphone pick-up  
2 elements are located in said microphone to enable energy and/or volume levels of said  
3 output audio streams to facilitate recognition of the speaker identity.

1 10. A microphone as claimed in Claim 1, wherein sound or electrical sensors  
2 arranged in a handle of said microphone detect when a holder of the microphone is  
3 speaking in contrast with a non-holder of the microphone.

1 11. A microphone as claimed in Claim 1, wherein said encoder encodes said audio  
2 signals through selectively a high- or low-frequency bias.

1 12. A microphone as claimed in Claim 11, wherein said decoder recognizes and  
2 eliminates said bias through selectively a DC high- pass or low-pass filter.

1 13. A microphone as claimed in Claim 1, wherein said encoder encodes said output  
2 audio signal streams in a plurality of channels by selectively utilizing multiple output  
3 wires, adding a DC-bias, modulation on different carrier frequencies, or stereo  
4 transmission..

1 14. A microphone as claimed in Claim 1, wherein said encoder encodes said audio  
2 signals by a pulsed signal whereby upon said microphone detecting another speaker, a  
3 beep is transmitted for detection by the decoder.

1 15. A microphone as claimed in Claim 13, wherein an auxiliary clip-on microphone  
2 device is located on at least one speaker, and the output of the audio signals from the

3 microphone is encoded with one said channel upon the energy of the clip-on  
4 microphone device exceeding a predetermined audio threshold.

1 16. A microphone as claimed in Claim 1, wherein a speech recognizer detects the  
2 encoding of the audio signals in said encoder and utilizes a different speech  
3 recognitions model based on the encoding to identify a speaker.

1 17. A microphone as claimed in Claim 1, wherein said microphone includes a  
2 camera for ascertaining visually any lip motion so as to detect the identify of the  
3 speaker.

1 18. A method of utilizing a microphone including an arrangement facilitating the  
2 reception and identification of at least one speaker utilizing the microphone, said  
3 method comprising:  
4 providing a device for producing an audio signal from said microphone;  
5 providing at least one sensor for determining the speaker using said microphone;  
6 providing an encoder for encoding the audio signal with a speaker with a  
7 speaker indicator number as determined by said at least one sensor;  
8 and providing a decoder for extracting the audio signal and decoding the speaker  
9 indicator number so as to enable the deriving of a speaker recognition model  
10 determination of the speaker.

1 19. A method as claimed in Claim 18, wherein said at least one sensor, said encoder  
2 said encoder and audio signal producing device are installed in said microphone.

1 20. A method as claimed in Claim 18, wherein said at least one sensor determines  
2 which of at least two speakers is using the microphone.

1 21. A method as claimed in Claim 18, wherein said audio signal device produces  
2 one or more output audio streams in dependence upon the identity of the speaker using  
3 the microphone.

1 22. A method as claimed in Claim 21, wherein said microphone comprises at least  
2 one switch actuatable by a speaker for producing said one or more output audio streams.

1 23. A method as claimed in Claim 22, wherein said switch comprises a manually-  
2 operated button on said microphone..

1 24. A method as claimed in Claim 22, wherein said switch comprises a position  
2 switch for detecting an angular orientation of said microphone.

1 25. A method as claimed in Claim 24, wherein said position switch comprises a  
2 mercury balance switch.

1 26. A method as claimed in Claim 21, wherein a plurality of microphone pick-up  
2 elements are located in said microphone to enable energy and/or volume levels of said  
3 output audio streams to facilitate recognition of the speaker identity.

1 27. A method as claimed in Claim 18, wherein sound or electrical sensors arranged  
2 in a handle of said microphone detect when a holder of the microphone is speaking in  
3 contrast with a non-holder of the microphone.

1 28. A method as claimed in Claim 18, wherein said encoder encodes said audio  
2 signals through selectively a high- or low-frequency bias.

1 29. A method as claimed in Claim 28, wherein said decoder recognizes and  
2 eliminates said bias through selectively a DC high- pass or low-pass filter.

1 30. A method as claimed in Claim 18, wherein said encoder encodes said output  
2 audio signal streams in a plurality of channels by selectively utilizing multiple output  
3 wires, adding a DC-bias, modulation on different carrier frequencies, or stereo  
4 transmission..

1 31. A method as claimed in Claim 18, wherein said encoder encodes said audio  
2 signals by a pulsed signal whereby upon said microphone detecting another speaker, a  
3 beep is transmitted for detection by the decoder.

1 32. A method as claimed in Claim 30, wherein an auxiliary clip-on microphone  
2 device is located on at least one speaker, and the output of the audio signals from the  
3 microphone is encoded with one said channel upon the energy of the clip-on  
4 microphone device exceeding a predetermined audio threshold.

1 33. A method as claimed in Claim 18, wherein a speech recognizer detects the  
2 encoding of the audio signals in said encoder and utilizes a different speech recognition  
3 model based on the encoding to identify a speaker.

1 34. A method as claimed in Claim 18, wherein said microphone includes a camera  
2 for ascertaining visually any lip motion so as to detect the identify of the speaker.